

IV.—*Descriptions of Six new Perciform Fishes from the Coast of Natal.*—By G. A. BOULENGER, F.R.S.

MR. J. F. QUEKETT, Curator of the Durban Museum, has sent me for identification a large series of fishes from the Coast of Natal. The fishes from that coast have received but little attention, and it is therefore not surprising that several specimens contained in the Collection have proved to belong to undescribed species. I have already described one,* a Galeid Selachian, under the name of *Scylliogaleus queketti*. Mr. Alex. Anderson, of Durban, who takes a great interest in the fishes in which he deals, and who brought the fishes over with him on a recent visit to England, informed me that the specimens were mostly procured from deep water, about 40 fathoms. It so happens, however, that the little Dog-fish, which I described as from that depth, was obtained from the rocks at the River Umkomaas, as I am now informed by Mr. Quekett. The perciform fishes here described are probably all from deep water.

The specimens here figured have been presented to the British Museum, along with many others, by Mr. Quekett.

DINOPERCA QUEKETTI. (Plate II.)

Depth of body $2\frac{2}{5}$ times in total length, length of head 3 times. Upper profile of head descending in a nearly straight line; lower jaw projecting; snout as long as or a little longer than the diameter of the eye, which is $3\frac{1}{2}$ to 4 times in length of head; interorbital width 4 times in length of head; maxillary extending to below the centre of the eye, the width of its distal extremity $\frac{3}{5}$ to $\frac{3}{4}$ the diameter of the eye; supramaxillary bone narrow; both jaws with a broad band of minute villiform teeth and an outer series of

* Ann. and Mag. N.H. (7) x. 1902, p. 51, pl. iv.

rather large conical teeth; a triangular patch of vomerine teeth and a moderately broad band of palatine teeth; præopercular border rounded, feebly serrated; two small, indistinct opercular spines; head densely scaled, with the exception of the end of the snout, the lips, and the lower jaw. Gill-rakers about as long as the gill-fringes, 27 or 28 on lower part of anterior arch; pseudobranchiæ very large. Dorsal XI 18, originating above axilla; spines weak, fourth and fifth and eleventh longest, $\frac{1}{4}$ or $\frac{2}{7}$ the length of the head, $\frac{2}{3}$ the length of the longest soft rays; the soft dorsal densely scaled, high and pointed in front, with slightly concave border. Anal III 13, opposed to soft dorsal and similar in shape; spines rather feeble, graduated, first very short, third twice as long as second and as long as longest dorsal. Pectoral very asymmetrical, obtusely pointed, $\frac{2}{3}$ length of head; ventral quite as long, reaching vent. Caudal slightly emarginate. Caudal peduncle $1\frac{1}{2}$ as long as deep. Scales $85\frac{1}{2}$, strongly ctenoid, with smaller ones between them; lateral line very indistinct, on about 55 scales. Blackish-brown; maxillary and cheek lighter, greyish-brown, with a blackish oblique streak from the præorbital to the angle of the præopercle.

This species is described from two specimens. The larger measures 410 mm., the smaller 250.

It is evidently closely related to the fish from the Mekran Coast and Sind, described by Day as *Hapalogenys petersi*, and for which I have proposed the genus *Dinoperca*. It differs in the absence of the barbel-like papillæ about the lips which caused the Indian species to be referred to *Hapalogenys*; also in the higher dorsal and anal fins, the shape of the body and fins, and, apparently, in the larger scales above the lateral line, Day having given the number as about 100.

EPINEPHELUS GRAMMATOPHORUS. (Plate III.)

Teeth in narrow bands, in two series on the sides of the mandible; canines strong. Depth of body 3 to $3\frac{2}{3}$ times in total length, length of head $2\frac{2}{3}$ to $2\frac{3}{4}$ times. Snout as long as diameter of eye, which is 4 to $4\frac{1}{2}$ times in length of head; interorbital width $5\frac{1}{2}$ to 6 times in length of head; lower jaw projecting; maxillary extending to below posterior border of eye, the width of its distal extremity $\frac{3}{4}$ to $\frac{2}{3}$ diameter of eye; serræ at angle of præopercle slightly enlarged; opercular spines equidistant, lower much further back than upper; opercular flap pointed; head nearly entirely covered with cycloid scales; maxillary naked. Gill-rakers nearly as long as gill-fringes, 15 on lower part of anterior arch. Dorsal XI 17, originating above

base of pectoral; third and fourth spines longest, nearly half length of head; last spine $\frac{2}{7}$ to $\frac{1}{3}$ length of head, and a little shorter than longest soft rays. Pectoral nearly $\frac{2}{3}$ length of head; ventral shorter. Anal III 8; second and third spines equal, $\frac{2}{7}$ length of head; longest soft rays nearly half length of head. Caudal rounded. Scales ciliated, 85-95 $\frac{10}{40}$; lateral line 65-70. Pinkish-brown; head with dark brown spots, vermiculations, and oblique lines; a dark brown streak along the maxillary; fins greyish.

Total length 330 mm.

Two specimens.

This species bears some resemblance to *E. morrhua*, C. and V., from which it differs principally in the higher number of soft dorsal rays, the rounded caudal fin, and the larger scales.

EPINEPHELUS ALBOMARGINATUS. (Plate IV.)

Teeth in narrow bands, in two series on the sides of the mandible; canines strong. Depth of body nearly equal to length of head, 3 times in total length. Snout as long as the eye, which is 4 times in length of head; interorbital width $4\frac{1}{2}$ times in length of head; lower jaw projecting; maxillary extending to below posterior border of eye, the width of its distal extremity $\frac{3}{5}$ the diameter of the eye; 3 to 5 enlarged serræ at the angle of the præopercle; middle opercular spine nearer lower than upper, lower much further back than upper; opercular flap pointed; head nearly entirely covered with cycloid scales; maxillary naked. Gill-rakers as long as gill-fringes, 13 or 14 on lower part of anterior arch. Dorsal XI 14, originating above base of pectoral; third to fifth spines longest, $\frac{1}{3}$ length of head, a little shorter than the soft rays. Pectoral $\frac{3}{5}$ length of head, scarcely longer than the ventrals. Anal III 8; third spine longest, $\frac{2}{7}$ length of head; longest soft rays nearly half length of head. Caudal rounded, subtruncate. Scales ciliated, 110-120 $\frac{18-20}{50}$; lat. l. 65. Reddish-brown, covered with numerous small round blackish spots; belly whitish, unspotted; pectorals uniform yellow; other fins dark grey-brown, edged with white, the dorsal and caudal with more or less distinct round black spots at the base.

Total length 290 mm.

Two specimens.

Most nearly related to *E. præopercularis*, Blgr., which has the third anal spine shorter, fewer scales between the dorsal spines and the lateral line, and a different colouration.

EPINEPHELUS ANDERSONI. (Plate V.)

Teeth in narrow bands, in two series on the sides of the mandible; canines feeble. Depth of body $4\frac{1}{3}$ times in total length, length of head 3 times. Snout $4\frac{1}{3}$ times in length of head, diameter of eye and interorbital width 6 times; lower jaw projecting; maxillary extending beyond vertical of posterior border of eye, the width of its distal extremity $\frac{2}{3}$ diameter of eye; serræ at angle of præopercle scarcely enlarged; lower opercular spine nearer median and a little further back than upper; opercular flap pointed; head nearly entirely covered with cycloid scales; maxillary naked.* Dorsal XI 15, originating above upper opercular spine; third and fourth spines longest, $\frac{1}{3}$ length of head, last spine $\frac{2}{7}$ length of head, longest soft rays $\frac{2}{5}$. Pectoral $\frac{3}{5}$ length of head; ventral shorter. Anal III 8; second and third spines equal, not quite $\frac{1}{4}$ length of head; longest soft rays nearly $\frac{1}{2}$ length of head. Caudal rounded. Scales cycloid, 110 $\frac{1}{3}\frac{1}{6}$; lateral line 78. Pale purplish-brown, with large round dark brown spots forming seven longitudinal series on each side; two oblique dark streaks on each side of the head, from the eye to the opercle; dorsal fin with large round dark spots.

Total length 370 mm.

A single specimen.

The fish I have the pleasure of naming after Mr. Alexander Anderson, of Durban, bears most resemblance to the young of *E. tawina*, Forsk. It differs, apart from the colouration, in the narrower interorbital region, the cycloid scales, and the lesser depth of the body.

DENTEX LINEOPUNCTATUS. (Plate VI.)

Depth of body $2\frac{1}{3}$ times in total length, length of head 3 times. Forehead slightly gibbose; length of snout equal to diameter of eye, and to interorbital width, $\frac{1}{3}$ length of head; least depth of præorbital $\frac{3}{4}$ diameter of eye; jaws equal in front, upper extending to below anterior fifth of eye; canine teeth strong; interorbital region covered with scales; 7 series of scales on the cheek, between the suborbital region and the præopercle; a patch of small scales on the suborbital region, which is otherwise wholly naked. Dorsal XII 10, originating above base of pectoral; fourth to sixth spines longest, not quite $\frac{1}{2}$ length of head, second and twelfth spines as long as soft rays, $\frac{1}{3}$ length of head. Anal III 8; spines very strong, second longest, longer than soft rays, $\frac{1}{3}$ length of head. Pectoral falciform, as long as head,

* The gill-arches not present in the original specimen.

reaching origin of anal. Ventral $\frac{2}{3}$ length of head, reaching vent. Caudal deeply emarginate, angularly notched. Scales very feebly denticulated, $53 \frac{1}{7}$. Red, the upper half of the body with 6 longitudinal series of purplish dots; these dots distributed more irregularly on the occiput and nape.

Total length 320 mm.

A single specimen.

Closely allied to *D. argyrozona*, C. and V. Distinguished by the larger eye, the shorter body, the fewer series of scales on the cheek, and the colouration.

PAGRUS NIGRIPINNIS. (Plate VII.)

Depth of body $2\frac{2}{3}$ times in total length, length of head 3 times. Forehead slightly humped, interorbital region broad and flat; length of snout $2\frac{1}{2}$ times in length of head, diameter of eye $4\frac{1}{2}$ times, interorbital width 3 times; least depth of præorbital equal to diameter of eye; jaws equal in front, upper extending to below anterior border of eye; canine teeth strong, 4 in each jaw; a single series of large molar teeth; interorbital region, occiput, cheek, and gill-cover densely covered with small strongly imbricate scales; these scales form 16 series on the cheek. Dorsal XII 10, originating above base of pectoral; third to fifth spines longest, $\frac{2}{3}$ length of head, twelfth shorter than the soft rays, which measure $\frac{1}{3}$ length of head. Anal III 8, second and third spines equal, strong, nearly as long as the soft rays, $\frac{1}{3}$ length of head. Pectoral falciform, as long as head, reaching beyond origin of anal. Ventral $\frac{2}{3}$ length of head, not quite reaching vent. Caudal angularly emarginate. Scales feebly denticulated, $70 \frac{1}{4}$; lat. line 62; scales on pectoral region very small. Greyish-brown above, irregularly blotched with darker, whitish beneath; caudal greyish, other fins black.

Total length 400 mm.

A single specimen.

Allied to *P. laniarius*, C. and V. Differs in the smaller scales, the single series of molar teeth, and the colouration.

EXPLANATION OF PLATES.

- PLATE II.—*Dinoperca queketti*.
 ,, III.—*Epinephelus grammatophorus*.
 ,, IV.—*Epinephelus albomarginatus*.
 ,, V.—*Epinephelus andersoni*.
 ,, VI.—*Dentex lineopunctatus*.
 ,, VII.—*Pagrus nigripinnis*.